Remarks

Claims 1-14 were pending in the present application, and claims 1-14 were rejected. Claim 5 has been amended, and claims 15-23 have been added to the present application. Claims 1-23 are therefore currently pending in this application.

Support for new claims 15-23 can be found in the present application as filed. For example, joining a DWV fitting to a source of corrosive waste is supported in the specification on page 11, lines 14-15, with further support being provided by the Example beginning on page 12. Chemical welding of CPVC pipes and fittings is also supported throughout the application, for example on page 8, lines 1-23.

In view of the foregoing, no new matter has been added to this application by the foregoing amendments. The Applicant therefore respectfully requests entry of these amendments and consideration of the present application as amended herein.

Nonobviousness of the Invention

Commercial Success

The evidence of commercial success previously presented by the Applicant was not found to be persuasive on the ground that this evidence was not commensurate in scope with the claims. The sales data presented in the Declaration of Gregory Peak relates to Spears Manufacturing Company's CPVC product, which comprises both CPVC DWV fittings and CPVC pipe sold together (as described in paragraph 2 of the Second Declaration of Gregory Peak submitted herewith). Applicant respectfully points out that claims 4-14, 18, 22, and 23 recite DWV pipes and DWV fittings comprising CPVC (or depend from claims which recite this). Therefore, at least with respect to claims 4-14, 18, 22, and 23, Applicant has provided evidence of commercial success which is commensurate in scope with the claims.

Applicant has further provided evidence that the commercial success of the presently claimed invention has been due to its advantageous properties, including ease of installation, as compared with prior corrosive waste systems (see paragraph 9 of the

previously submitted Declaration of Gregory Peak). Such commercial success was not attributable to marketing by Spears Manufacturing Company, as discussed in paragraph 10 of the Declaration of Gregory Peak. The Second Declaration of Gregory Peak further attests to the fact that price alone is not responsible for the commercial success of Spears' product, as CPVC DWV fittings and pipe are comparable in price to prior art polymer pipe and fittings available on the market, such as those made from polypropylene. Therefore, the commercial success of the present invention cannot be attributed to extraneous factors such as marketing or price.

Copying by Others

In addition to the foregoing evidence of commercial success, the Applicant is also submitting herewith evidence of copying by a competitor in order to demonstrate the nonobviousness of the present invention. Both the Supreme Court and the Federal Circuit have noted that evidence of copying by competitors is probative of the nonobviousness of an invention. In the *Diamond Rubber* case, the Supreme Court viewed as significant the copying of an invention in a crowded art. The court stated that "The prior art was open to the [defendant] Rubber Company .... And yet the rubber company uses the Grant tire" (i.e., the infringed product). Diamond Rubber Co. v. Consolidated Rubber Tire Co., 220 U.S. 428, 441 (1911).

Copying of the Applicant's invention is evidenced by Exhibit A of the Declaration of Donald K. Piper submitted herewith. Exhibit A is an advertisement placed in a trade publication by a competitor of Spears Manufacturing Company (to which the present application has been assigned), namely the Charlotte Pipe and Foundry Company, showing that Charlotte Pipe has begun selling DWV fittings and pipe made from CPVC for corrosive waste disposal. A press release from Charlotte Pipe's website, attached as Exhibit B to the Declaration of Donald K. Piper, confirms Charlotte's offering of CPVC DWV pipes and fittings.

Recognition by Competitors

Not only did the Charlotte Pipe and Foundry Company copy Applicant's invention, it also recognized its inventiveness. Charlotte Pipe's advertisement (Exhibit A of the Declaration of Donald K. Piper) proclaims: "And it only seems fitting that the latest and greatest invention to come out of a laboratory is designed to go into one" (*PM Engineer*, p. 9, June 2005, in reference to Charlotte Pipe's CPVC pipe and fittings for laboratory corrosive waste drainage).

Courts have found a competitor's determination that a product constitutes an invention to be persuasive of the nonobviousness of the invention. In the *American Medical Systems* case, for example, the attempt of an accused infringer to patent an invention was found to be probative of the nonobviousness of the invention [*American Medical Systems, Inc. v. Medical Engineering Corp.*, 794 F. Supp. 1370, 1386, 28 USPQ2d 1081, 1090-91 (E.D. Wis. 1992) *aff'd in part, rev'd in part & remanded*, 6 F.3d 1523, 28 USPQ2d 1321 (Fed. Cir. 1993)].

The Applicant notes that although Charlotte Pipe and Foundry apparently believes the use of CPVC for DWV pipes and fittings to be its own invention based on the statements it made in the PM Engineering advertisement, Applicant's invention thereof clearly predates any activity by Charlotte Pipe. Charlotte Pipe announced the launch of its CPVC system in a press release dated June 1, 2005, more than two years after the priority date of the present application.

Long-Felt Need

Applicant's evidence of a long-felt need for the present invention was also not found persuasive by the Examiner, on the ground that there was no showing that others of ordinary skill in the art were working on the problem or that such skilled artisans were aware of the prior art cited in this case. Plastic DWV fittings for handling corrosive waste have existed at least as early as 1992, when ASTM Standard F 1412, entitled "Standard Specification for Polyolefin Pipe and Fittings for Corrosive Waste Drainage Systems," was issued. Section 1.5 of this standard states that "Pipe and fittings are joined

by the heat fusion method or by using mechanical joints." As noted in the present application, the use of heat fusion or a mechanical joint to join fittings and pipes is time consuming and beset by other problems which are overcome by the present invention. Problems such as the added difficulty of installing fittings through the use of fusion techniques or mechanical joints have been apparent from the very beginning of the use of polyolefin pipe and fittings for corrosive waste handling applications, as discussed in the Second Declaration of Gregory Peak (see paragraph 5).

The present invention satisfies the long-felt need for DWV fittings and pipes for handling corrosive waste which are easier to install. With respect to the assertion made in the present Office Action that there is no evidence that persons skilled in the art who were aware of the problems with the prior art knew of the teachings of the references cited in the Office Action, the Applicant respectfully points out that the references cited in the Office Action are all U.S. patents or patent publications which generally relate to the field of the present invention, and that these publications are all publicly available.

In view of the foregoing evidence of commercial success, copying and recognition by competitors, and satisfaction of a long-felt need, Applicant respectfully submits that it has established the nonobviousness of the present invention. Applicant therefore respectfully requests reconsideration of the obviousness rejections of the present application in view of this evidence.

Rejections under 35 U.S.C. § 102(b)

Rejection of Claims 1-14 based on Public Use or Sale

Claims 1-14 were rejected under 35 U.S.C. §102(b) on the ground that the previously submitted Declaration of Gregory Peak provides evidence of a prior sale of the present invention. Paragraph 8 of this declaration states that "Spears Manufacturing Company has been selling CPVC fittings and pipe for DWV Service for little more than three years." The declaration is dated January 27, 2005, and this date is cited as support for the Examiner's conclusion that there were therefore sales of the presently claimed invention as of January 27, 2002.

The declarant, Gregory Peak, made the foregoing statement on information and belief. In view of the Examiner's determination, however, Mr. Peak reviewed the records of Spears Manufacturing Company and found that his prior statement was in fact inaccurate. Spears' records indicate that the first sale of the present invention did not occur prior to September 23, 2002, as attested to in the Second Declaration of Gregory Peak submitted herewith.

In view of the further evidence provided herewith, the Applicant submits that there was in fact no sale of the present invention more than one year prior to the filing date of present patent application. The Applicant therefore respectfully requests that the rejection of claims 1-14 under 35 U.S.C. §102(b) based on a prior sale of the present invention be withdrawn.

Rejection of Claims 1-4, 13, and 14 based on Tuohey

Claims 1-4, 13, and 14 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,437,138 to Tuohey. Claims 1-4, 13, and 14 all recite DWV fittings comprising chlorinated polyvinyl chloride. DWV fittings, as described in the present application, have bores or sockets which have a pitch that changes by 1/4" per foot, a property known in the art as "fall." This feature of DWV fittings is corroborated in ASTM Standard D 3311-94, which was attached as Exhibit A of the Response to Office Action dated January 28, 2005 in the present case. ASTM Standard D 3311-94 confirms that to qualify as a DWV fitting, even fittings having a right angle must be pitched at 1/4" per foot or 1° 12 minutes (see page 1, section 3.4 under "Requirements"). Such pitching allows gravity to act on fluids in DWV fittings so as to draw them through the fittings and drain the fluid.

In view of this, the term "DWV fitting" used in Claims 1-4, 13, and 14 is not merely a description of an intended use of a drain fitting, but is in fact a defined physical feature of the presently claimed fittings. The Tuohey patent discloses only a conventional rain gutter, and does not teach that the components are pitched as are DWV fittings. In light of the foregoing, Applicant respectfully requests that the rejections of

Claims 1-4, 13, and 14 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,437,138 to Tuohey be withdrawn.

Rejection of Claims 1-4, 6, and 13 based on Vanesky (577)

Claims 1-4, 6, and 13 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,685,577 to Vanesky. Vanesky discloses a coupling for connecting sections of pipe which includes a first, second, and third cylindrical land (i.e., a raised region) on the interior portion of the coupling. These cylindrical lands are "collinear and congruent" according to Vanesky (see column 3, lines 2-3 and column 4, lines 17-20). Since the lands reside on the interior of the coupling, the coupling itself must be linear, i.e. not pitched, if the cylindrical lands are "collinear."

As stated above, the term "DWV fitting" is not merely a description of an intended use of a drain fitting, but in fact describes a physical feature of the presently claimed fittings, namely that they have pitched bores. Claims 1-4, 6, and 13 recite DWV fittings or depend from claims which recite DWV fittings. In light of this, Applicant respectfully requests that the rejections of Claims 1-4, 6, and 13 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,685,577 to Vanesky be withdrawn.

Rejection of Claims 1-7 and 13 based on Shaefer

Claims 1-7 and 13 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,457,542 to Shaefer. Shaefer discloses a pipe fitting comprising an internal liner made, e.g., from CPVC. The fitting of the Shaefer patent, however, is not pitched and therefore is not a DWV fitting, as described above.

Moreover, the fitting described by Shaefer includes an outer reinforcement layer (see, e.g., column 3, lines 26-30 and column 4, lines 13-15). This suggests that the Schaefer fitting is intended for use in pressure applications, i.e. in which pressurized fluid is being conducted, and not in drainage applications (in which fluids are not pressurized). Fittings for pressurized applications are generally not pitched, since this is not necessary to move fluids through pressurized conduits.

Claims 1-7 and 13 all recite DWV fittings or depend from claims which recite DWV fittings. In view of the foregoing, Applicant respectfully requests that the rejection of Claims 1-7 and 13 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,457,542 to Shaefer be withdrawn.

Rejections under 35 U.S.C. § 102(e)

Rejection of Claim 14 over Auvil

Claim 14 was rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,775,378 to Auvil. Auvil discloses pipes and fittings for use in fire protection systems. Auvil, however, does not teach that the disclosed fittings should be pitched. Moreover, fire protection systems conduct fluids such as water under pressure, and as discussed above fittings for use in pressurized systems are not pitched. The fittings of Auvil therefore are not DWV fittings, as recited in claim 14.

In light of the foregoing, Applicant respectfully requests that the rejection of claim 14 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 5,775,378 to Auvil be withdrawn.

Rejection of Claim 14 over Thomas

Claim 14 was rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication No. 2003/0056826 to Thomas on the ground that this reference discloses a pipe and fitting made of CPVC which is used as a drain. Thomas discloses the use of PVC pipe for drain pipes and copper pipes for the water supply pipes, extensions and other water-carrying (i.e., pressurized) pipes (see, e.g., page 3, paragraph 39, lines 1-3 of Thomas).

The only reference to the use of CPVC in the specification of the Thomas reference is the following: "[C]hlorinated polyvinyl chloride (CPVC), poly-butylene or stainless steel can be used in place of copper and cast iron or copper can be used in place of PVC, when local building codes permit." CPVC is thus disclosed as a substitute for

pressurized fluid conduits, such as copper, and not as a substitute for drainage applications. This is further supported by the Second Declaration of Gregory Peak submitted herewith (see paragraph 8).

Although the Thomas reference does mention that "any material that meets local building codes can be substituted for PVC," those in the trade are well aware that local building codes at the time the present application was filed did not list CPVC DWV fittings as a substitute for PVC DWV fittings. Most local building codes are based on one of the uniform codes promulgated by trade associations such as the International Association of Plumbing and Mechanical Officials, Building Officials and Code Administrators International Inc., Southern Building Code Congress International Inc., and the International Code Council. Such codes did not list CPVC as a substitute for PVC in DWV applications, as attested in the Second Declaration of Gregory Peak (see paragraph 9).

In light of the foregoing, Applicant respectfully requests that the rejection of claim 14 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Publication No. 2003/0056826 to Thomas be withdrawn.

Rejections under 35 U.S.C. § 103

Rejection of Claims 1-13 over Condon in view of Shaefer

Claims 1-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,423,345 to Condon in view of U.S. Patent No. 4,457,542 to Shaefer. Condon discloses DWV fittings formed from PVC or ABS for use in conventional plumbing. As discussed above, Shaefer does not teach a DWV fitting, nor does it suggest using the fitting disclosed in that patent for drainage applications. On the contrary, the use of an outer reinforcement layer in the fitting of Shaefer suggests that it should be used to conduct pressurized fluids. Moreover, Condon teaches only conventional plumbing applications and not the conducting of corrosive waste, and so does not provide a motivation to substitute materials with enhanced resistance to corrosion. Therefore, there

is no motivation or suggestion to combine these references in a manner which would make the present invention obvious.

Any finding of obviousness is also overcome by the evidence of commercial success, copying and recognition by competitors, and satisfaction of a long-felt need which has been provided in connection with the present application. In view of the foregoing, the Applicant respectfully requests that the rejection of claims 1-13 under 35 U.S.C. § 103(a) as being unpatentable over Condon in view of Shaefer be withdrawn.

Rejection of Claims 8-12 over Shaefer

Claims 8-12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,457,542 to Shaefer. As discussed above, Shaefer does not teach DWV fittings, and the use of an outer reinforcement layer in the fitting of Shaefer suggests that it should be used to conduct pressurized fluids, thus teaching away from a modification of the Schaefer fitting for use as a DWV fitting. In view of the foregoing and in view of the evidence of nonobviousness provided by the Applicant, the Applicant respectfully requests that the rejection of claims 8-12 under 35 U.S.C. § 103(a) as being unpatentable over Shaefer be withdrawn.

Conclusion

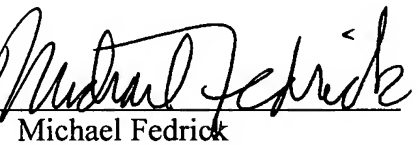
Applicant believes it has addressed the issues raised in the Office Action dated May 3, 2005 and that all pending claims are now in condition for allowance. The issuance of a Notice of Allowance is therefore respectfully requested. If there remain any issues in this case which can be addressed by telephone, the Examiner is encouraged to contact the undersigned at the telephone number listed below.

Please charge the fee set forth in 37 CFR §1.17(e) and any other fees due in connection with the present Request for Continued Examination and Amendment, or charge any overpayment, to Deposit Account No. 19-2090.

Respectfully submitted,

SHELDON & MAK PC

Date: November 3, 2005

By: 
Michael Fedrick
Reg. No. 36,799

225 South Lake Avenue, 9th Flr.
Pasadena, California 91101
(626) 796-4000